

PIP-II IT HWR - Feature #24736

Connect, instrument and test Berkeley Detune and Quench Detection Block

08/09/2020 03:46 PM - Brian Chase

Status:	New	Start date:	08/09/2020
Priority:	High	Due date:	
Assignee:		% Done:	0%
Category:		Estimated time:	20.00 hours
Target version:		Spent time:	0.20 hour
Description <p>The detune and quench block is in place in the firmware and I believe that the inputs to it both signal and control are connected. Some checkout of the Python code used to generate the coefficients has happened. We need this block to work to for resonance control to work with HWR, Tasks that I think we need to get it operational are:</p> <ol style="list-style-type: none">1) Varyify the inputs for proper scaling.2) Connect the frequency error signal through a select switch to the PI Loop.3) Get full understanding of the algorithm and the control registers4) Readback the quench bit to LV4b) Test in the lab and document what has been done.5) Run scripts- May have to fake pulsed mode operation.6) Get some help from Berkeley when we are ready for studies. (This could even be Monday afternoon if we can cleanly execute the earlier steps.) <p>This is a high priority group effort as we can do no more testing until this is done.</p>			

History

#1 - 08/09/2020 03:51 PM - Brian Chase

- Estimated time set to 20.00 h

- Subject changed from connect, instrument and test Berkeley Detune and Quench Detection Block to Connect, instrument and test Berkeley Detune and Quench Detection Block

- File tuning_dsp4.pdf added

Adding Larry's detune paper. There may be a newer version?

Also, I would like someone to put in links to the firmware and the Python scripts.

#2 - 08/10/2020 01:47 PM - Brian Chase

<https://cdcv.sfnal.gov/redmine/issues/22694>

Milestone #23473

Files

tuning_dsp4.pdf	126 KB	08/09/2020	Brian Chase
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